Operation/Reference Guide

Carbon XA

Amplifiers

DAS-AMP4 4-Channel Amplifier
DAS-AMP8 8-Channel Amplifier
DAS-(I)AMP4 4-Channel Amplifier
DAS-(I)AMP8 8-Channel Amplifier

Distributed Audio

Initial Release: 6/02/2008

AMX Limited Warranty and Disclaimer

This Limited Warranty and Disclaimer extends only to products purchased directly from AMX or an AMX Authorized Partner which include AMX Dealers, Distributors, VIP's or other AMX authorized entity.

AMX warrants its products to be free of defects in material and workmanship under normal use for three (3) years from the date of purchase, with the following exceptions:

- Electroluminescent and LCD Control Panels are warranted for three (3) years, except for the display and touch overlay components are warranted for a period of one (1) year.
- Disk drive mechanisms, pan/tilt heads, power supplies, and MX Series products are warranted for a period of one (1) year.
- AMX lighting products are guaranteed to switch on and off any load that is properly connected to our lighting products, as long as the AMX lighting products are under warranty. AMX also guarantees the control of dimmable loads that are properly connected to our lighting products. The dimming performance or quality there of is not guaranteed, impart due to the random combinations of dimmers, lamps and ballasts or transformers.
- AMX software is warranted for a period of ninety (90) days.
- Batteries and incandescent lamps are not covered under the warranty.
- AMX AutoPatch Epica, Modula, Modula Series4, Modula CatPro Series and 8Y-3000 product models will be free of defects in materials and manufacture at the time of sale and will remain in good working order for a period of three (3) years following the date of the original sales invoice from AMX. The three-year warranty period will be extended to the life of the product (Limited Lifetime Warranty) if the warranty card is filled out by the dealer and/or end user and returned to AMX so that AMX receives it within thirty (30) days of the installation of equipment but no later than six (6) months from original AMX sales invoice date. The life of the product extends until five (5) years after AMX ceases manufacturing the product model. The Limited Lifetime Warranty applies to products in their original installation only. If a product is moved to a different installation, the Limited Lifetime Warranty will no longer apply, and the product warranty will instead be the three (3) year Limited Warranty.

All products returned to AMX require a Return Material Authorization (RMA) number. The RMA number is obtained from the AMX RMA Department. The RMA number must be clearly marked on the outside of each box. The RMA is valid for a 30-day period. After the 30-day period the RMA will be cancelled. Any shipments received not consistent with the RMA, or after the RMA is cancelled, will be refused. AMX is not responsible for products returned without a valid RMA number.

AMX is not liable for any damages caused by its products or for the failure of its products to perform. This includes any lost profits, lost savings, incidental damages, or consequential damages. AMX is not liable for any claim made by a third party or by an AMX Authorized Partner for a third party.

This Limited Warranty does not apply to (a) any AMX product that has been modified, altered or repaired by an unauthorized agent or improperly transported, stored, installed, used, or maintained; (b) damage caused by acts of nature, including flood, erosion, or earthquake; (c) damage caused by a sustained low or high voltage situation or by a low or high voltage disturbance, including brownouts, sags, spikes, or power outages; or (d) damage caused by war, vandalism, theft, depletion, or obsolescence.

This limitation of liability applies whether damages are sought, or a claim is made, under this warranty or as a tort claim (including negligence and strict product liability), a contract claim, or any other claim. This limitation of liability cannot be waived or amended by any person. This limitation of liability will be effective even if AMX or an authorized representative of AMX has been advised of the possibility of any such damages. This limitation of liability, however, will not apply to claims for personal injury.

Some states do not allow a limitation of how long an implied warranty last. Some states do not allow the limitation or exclusion of incidental or consequential damages for consumer products. In such states, the limitation or exclusion of the Limited Warranty may not apply. This Limited Warranty gives the owner specific legal rights. The owner may also have other rights that vary from state to state. The owner is advised to consult applicable state laws for full determination of rights.

EXCEPT AS EXPRESSLY SET FORTH IN THIS WARRANTY, AMX MAKES NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. AMX EXPRESSLY DISCLAIMS ALL WARRANTIES NOT STATED IN THIS LIMITED WARRANTY. ANY IMPLIED WARRANTIES THAT MAY BE IMPOSED BY LAW ARE LIMITED TO THE TERMS OF THIS LIMITED WARRANTY. EXCEPT AS OTHERWISE LIMITED BY APPLICABLE LAW, AMX RESERVES THE RIGHT TO MODIFY OR DISCONTINUE DESIGNS, SPECIFICATIONS, WARRANTIES, PRICES, AND POLICIES WITHOUT NOTICE.

Table of Contents

IMPORTANT SAFETY INSTRUCTIONS ..... a
Carbon XA Amplifiers 1
Overview 1
Features 1
Product Specifications 2
Wiring and Connections 3
Connecting Carbon XA to a Mi-Series Audio Controller 3
Connecting Matrix Keypads to the Carbon XA 3
Molex Connector 3
Connecting Speakers 3
Non-SWT Speakers 3
SWT Speakers 3
Wiring Diagram 4

IMPORTANT SAFETY INSTRUCTIONS

1. Read instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the grounding-type plug. The grounding plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.

12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Warning: Shock Hazard *- The lightning flash within an equilateral triangle, intended to alert the user to the presence of un-insulated "Dangerous voltage" within the products enclosure that may be of significant magnitude to constitute a risk of electric shock to persons*

Read Accompanying Documentation *– The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.*

15. *The fuse should only be replaced with a T8AL250V fuse.*
16. The RCA, RJ11and RJ45 Jacks shall only be used for their intended use. Refer to accompanying documentation to insure that they are being used as intended.
17. The spring clip terminals and F-connector on the tuner module should only be used to connect an AM and FM antenna.
18. A grounded power outlet is required for safe operation.
19. The grounded 3 prong power cable will be the mains disconnect and it should remain readily available.
20. To completely disconnect the unit from the AC mains, disconnect the power supply cord plug from the AC receptacle.
21. The main voltage for the AC mains is 120v AC (US Models) / 240v AC (Int'l models).

Warning *– To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids are placed on the equipment.*

Carbon XA Amplifiers

Overview

Where more than one pair of speakers is required in a zone, Carbon XA amplifiers provide the extra power needed to drive up to 4 additional speaker pairs (FIG. 1). Use Carbon XA in backyards, large rooms or other zones where additional speakers are needed.

FIG. 1 Carbon XA Amplifiers - Front view (DAS-AMP4 shown)

Carbon XA Amplifiers provide extra output power to multiple pairs of speakers driven from one Mi-Series/Delta zone.

- The **DAS-AMP4** Carbon XA 4-Channel Amplifier is a 4-channel amp that supports an additional 2 speaker pairs per unit (120V). The **DAS-IAMP4** is a 240V version for International usage.
- The **DAS-AMP8** is an 8-channel amp that supports an additional 4 speakers pairs per unit (120V). The **DAS-IAMP8** is a 240V version.

Features

Features common to all Carbon XA Amplifiers include:

- High-quality sound - delivers 60 watts of high-quality sound per channel.
- Expandable configuration - stack up to 3 Carbon XA units per zone to gain up to 12 additional speaker pairs (24 channels).
- Easy installation - Speaker Wire Technology makes installation simple using four conductor speaker wire.
- Integrates with both the Delta Series and Mi Series controllers, as well as the C, C-DT and EL Series speakers.
- Utilizes proprietary SWT - Speaker Wire Technology™

Product Specifications

Carbon XA Product Specifications	
Models Available:	• **DAS-AMP4** (FG1102-01) 4-Channel Amplifier (120 V) • **DAS-IAMP4** (FG1102-02) 4-Channel Amplifier (240 V) • **DAS-AMP8** (FG1102-03) 8-Channel Amplifier (120 V) • **DAS-IAMP8** (FG1102-04) 8-Channel Amplifier (240 V)
Configuration:	• Modular Design - configurable in single pairs up to 4 stereo pairs (8 channels). • Stackable up to 3 Carbon XA units or 12 stereo pairs (24 channels)
Stereo Output:	• Dual mono amplifier stage design • 60 watts per channel • THD+N at 1 Khz continuous .006%@ 8 Ohms • Each Carbon XA amplifier is capable of providing 480 watts @ 8 Ohms
Control Options:	• Matrix keypad • C-Series speakers using SWT
Power:	• 750W max (Average usage = 250W). • High current Torroidal power supply
Front Panel Components:	
Status LED	Dual stage status LED: • Red in standby • Green when active
Rear Panel Components:	
• Power Switch & Receptacle	The master power switch will remain in the ON position normally.
• Output 1-4:	Euro-style connectors provide direct connection to speakers.
• From Controller:	SWT input port (connects to an Mi-Series Audio Controller)
• To Keypad:	SWT output port (connects to Matrix keypad or interface)
Available Colors:	Black, Silver
Dimensions (HWD):	Including feet and rear connectors: • 3 1/16” x 17” x 13 1/2” • 7.68cm x 43.18cm x 33.52cm
Weight:	25.75 lbs (11.68 kg)

Wiring and Connections

Connecting Carbon XA to a Mi-Series Audio Controller

Connect the Carbon XA Amplifier to the Mi-Series Audio Controller via the Euro-style connector labelled "**From Controller**" on the rear panel of the Carbon XA.

Connecting Matrix Keypads to the Carbon XA

Connect Matrix Keypads to the Carbon XA Amplifier via the Euro-style connector labelled "**To Keypad**" on the rear panel of the Carbon XA (see FIG. 1).

Molex Connector

FIG. 1 provides a Molex Connector Legend

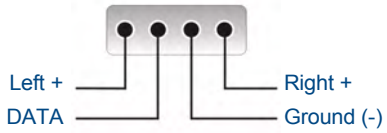

FIG. 1 Molex Connector Legend

NOTE

When stripping cable for use with the Euro-style connector, only strip away about ¼" (6mm) of the insulation from each wire. The complete assembly should not have more than 1/32" (1mm) of bare wire exposed from the bottom of the connector.

Connecting Speakers

Non-SWT Speakers

Each speaker has a Red (positive) terminal and a Black (negative) terminal. Connect the appropriate wire from the keypad to Red and Black terminals on the Left and Right speakers, as with any standard speaker installation.

SWT Speakers

Matrix Audio SWT Speakers are different from any other speaker available on the market. They allow you to control a single zone of audio without a keypad being installed. Therefore, some different wiring practices must be considered for proper operation and control.

This is achieved by "daisy-chaining" from the first speaker to the second speaker. The main run of 16/4 from the controller will go directly to the first speaker in the zone.

- At the controller end, the wiring is left-to-right: L D G R with the screws of the connector facing up.
- At the speaker end, refer to the labeling on speaker PCB to ensure the correct wiring.

The labelling at both ends must match or the IR control will not work (i.e.: if you used the RED wire for the Left Audio labelled "L" at the zone output, you must use the RED wire for the pin labelled "L" on the speaker connector).

Be sure to screw the connector down to the speaker crossover board before installing and securing in the ceiling. This will ensure that the connector will not disconnect after installation.

A single run of 16/2 must be run from the first speaker to the second speaker.

Wiring Diagram

The illustration below (FIG. 2) provides a wiring diagram illustrating connections from the Mi-Series Audio Controller, and to a Matrix Keypad:

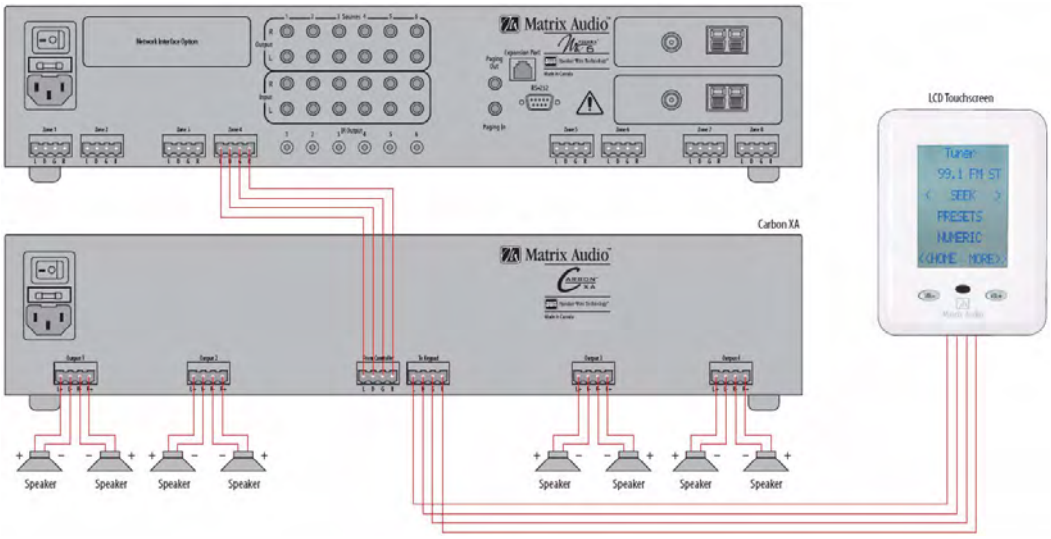

FIG. 2 Connecting the Carbon XA Amplifiers to Mi-Series Audio Controllers and Matrix Keypads

It's Your World - Take Control™

3000 RESEARCH DRIVE, RICHARDSON, TX 75082 USA • 800.222.0193 • 469.624.8000 • 469-624-7153 fax • 800.932.6993 technical support • www.amx.com

6/08 ©2008 AMX. All rights reserved. AMX and the AMX logo are registered trademarks of AMX. AMX reserves the right to alter specifications without notice at any time.